

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**For The Week Of 19 - 25 August 2019**

**Survey Overview**

Bill Burns (ODA Ontario), Don Landis (ODA Ontario) and Adrian Mendez (ODA Klamath Falls) made 74 survey stops across 6 counties: Baker, Deschutes, Harney, Klamath, Lake and Malheur. This effort completes our formal survey for the season (and thus is the last weekly report). We will continue to respond to land owners and managers who face high density populations.

**GRASSHOPPER**

We continue to get a call or two each week about overwhelming grasshopper populations. Many of these people report that this year is the worse they have ever seen. These locations are often in areas where we have not documented population issues previously.

Conditions this week were generally moderate to seasonal over most of the survey.

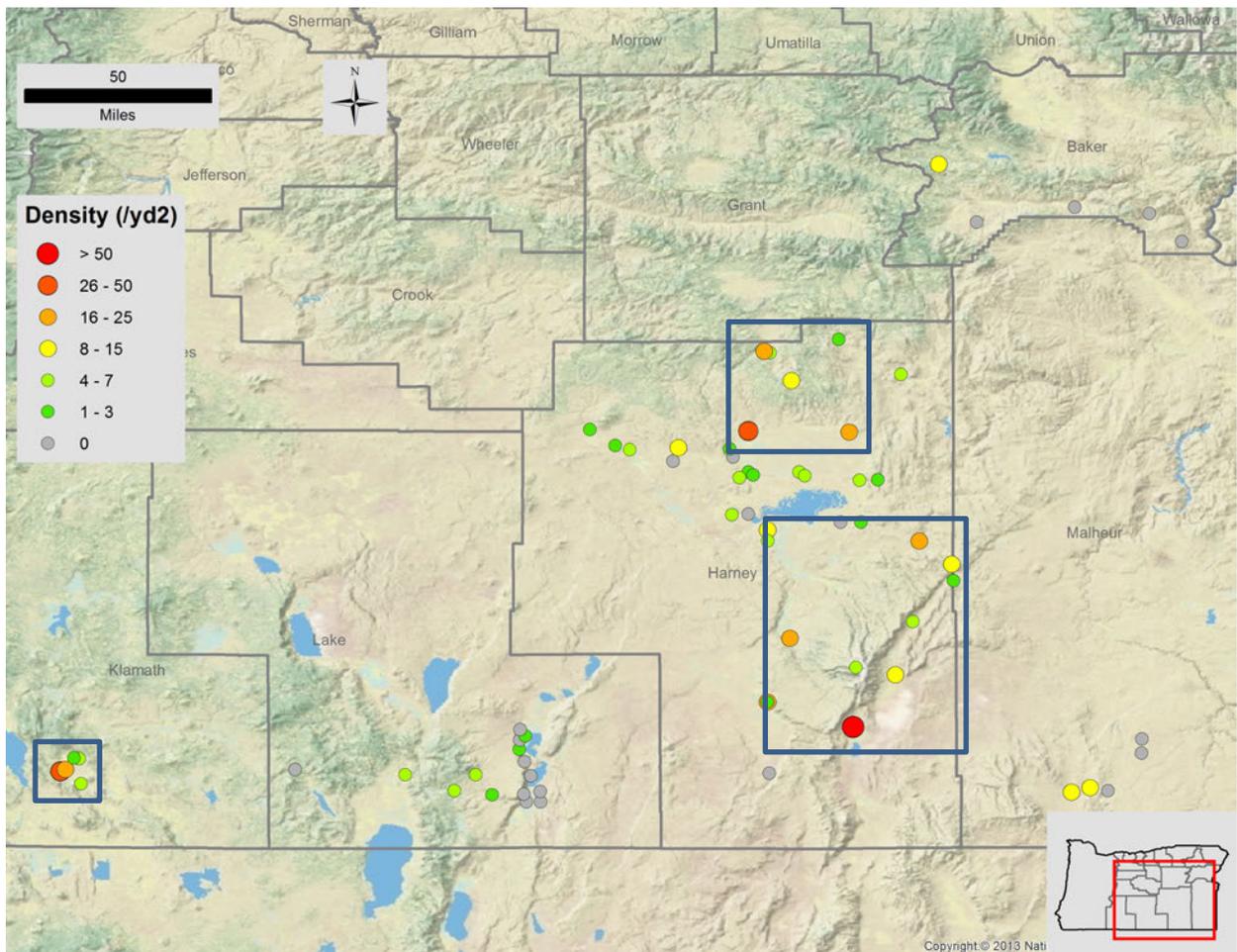


Fig. 1. Grasshopper densities ( $/yd^2$ ) from this week's Survey (1:1900k\*).

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

Table 1. This week's grasshopper survey showing the number of stops by Density Category (/yd<sup>2</sup>) and Dominant Life Stage.

Density	Totals	Dominant Developmental Stage						
		Egg	1	2	3	4	5	Adult
0	23							
1 – 3	17	0	0	0	0	0	1	16
4 – 7	16	0	0	0	0	1	1	14
8 – 15	9	0	0	0	0	0	0	9
16 – 25	6	0	0	0	0	0	0	6
26 – 50	2	0	0	0	0	0	0	2
> 50	1	0	0	0	0	0	0	1
	74	0	0	0	0	1	2	48
Percentages:		0	0	0	0	2	4	94

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**Closer Looks – Grasshopper Areas:**

Zoom in for a closer look at areas highlighted (rectangles) in Fig. 1.

**1) Northern Harney County:**

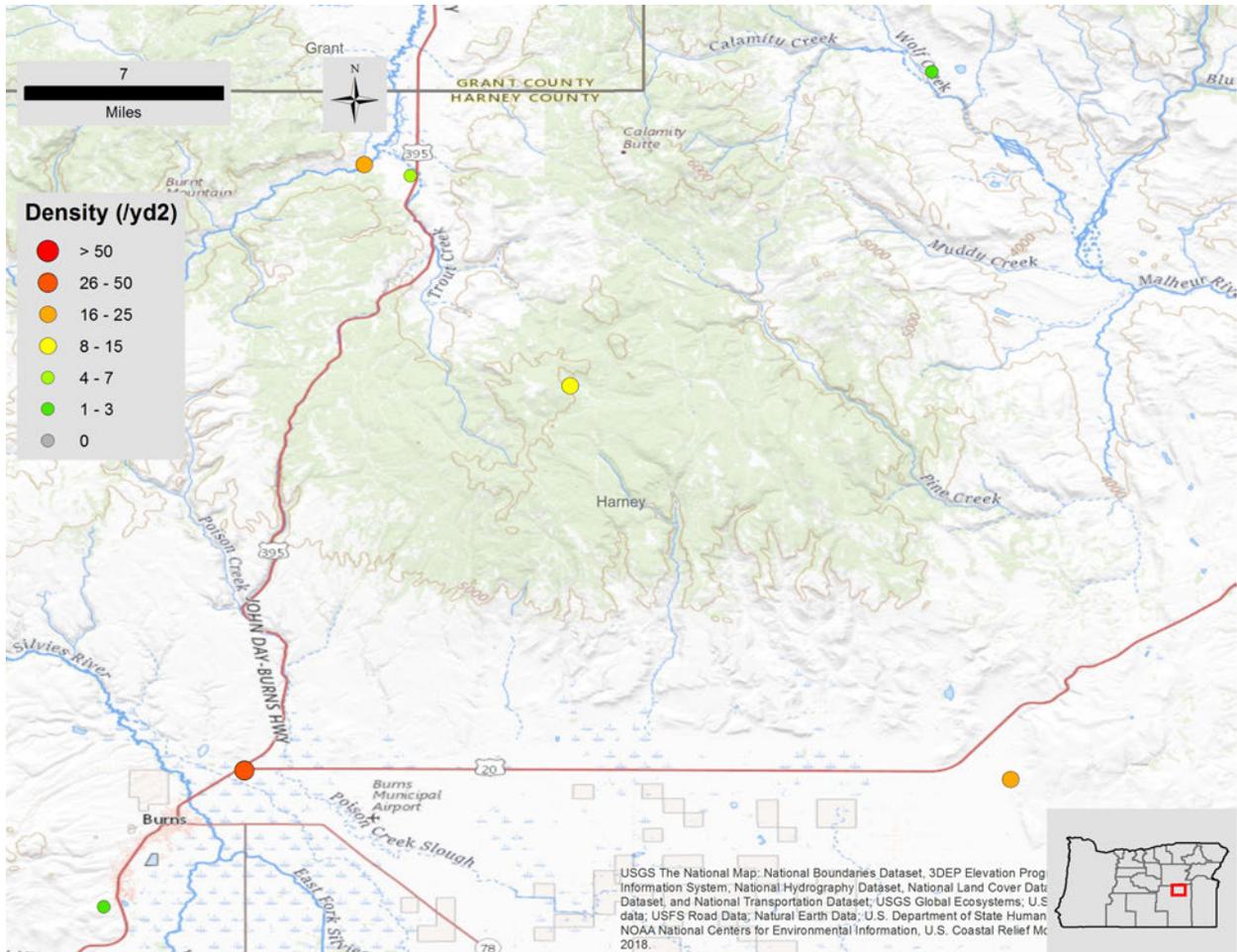


Fig. 2. Grasshopper densities (/yd<sup>2</sup>) from this week's Survey (1:250k\*).

State: Oregon  
National Rangeland Grasshopper Mormon cricket Program Report

2) Southern Harney County:

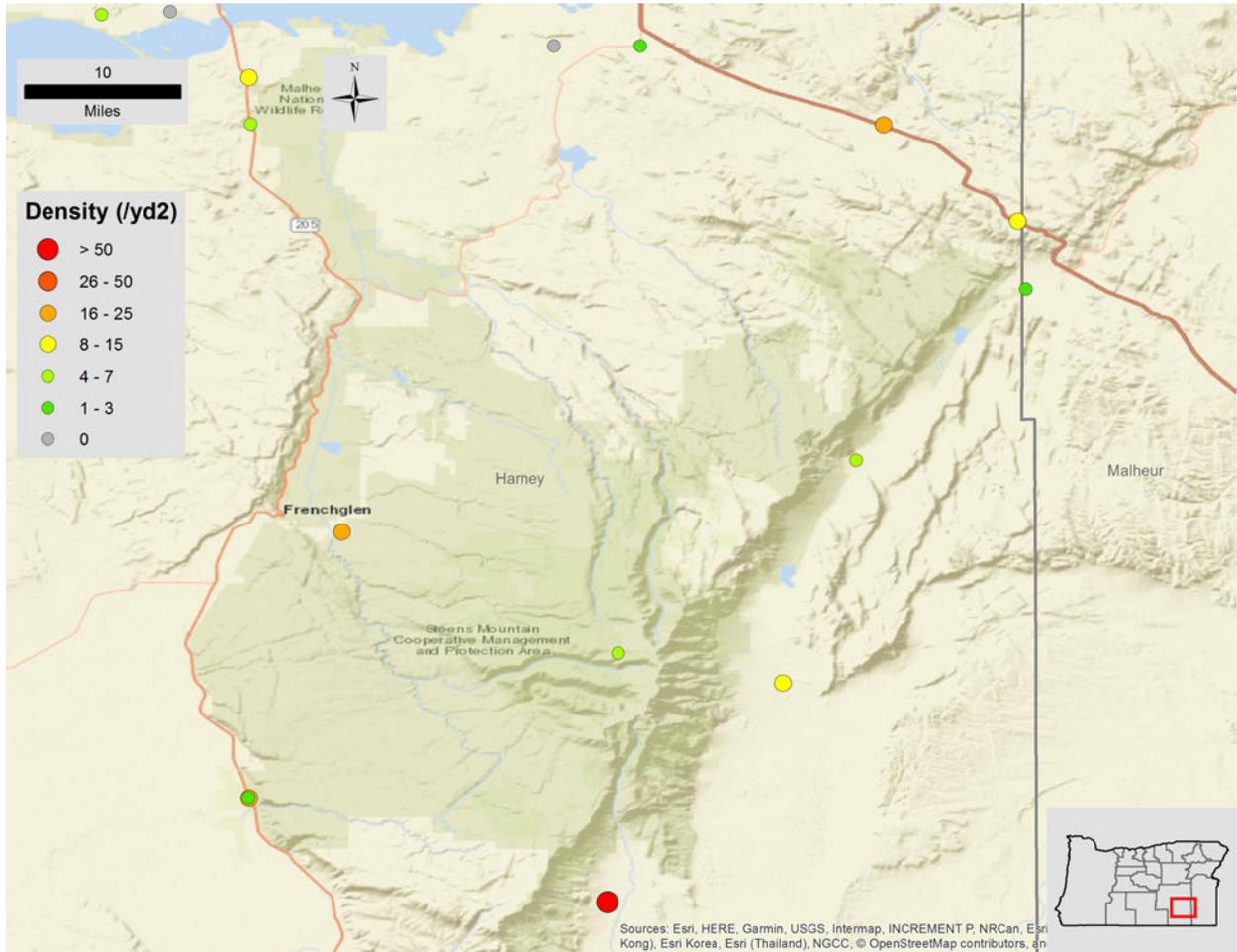


Fig. 3. Grasshopper densities (/yd<sup>2</sup>) from this week's Survey (1:455k\*).

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**3) Swan Lake Valley, Klamath County:**

Received concerns from several ranchers in the Swan Lake Valley basin. Predominately adult and some late nymphal instar stages of *Melanoplus sanguinipes*. Land management for 2020 should include focus on early season scouting for hatch. If numbers justify then suppression efforts could be made.



Fig. 4. Grasshopper densities (/yd<sup>2</sup>) from this week's Survey (1:60k\*).

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**Grasshopper Year-To-Date**

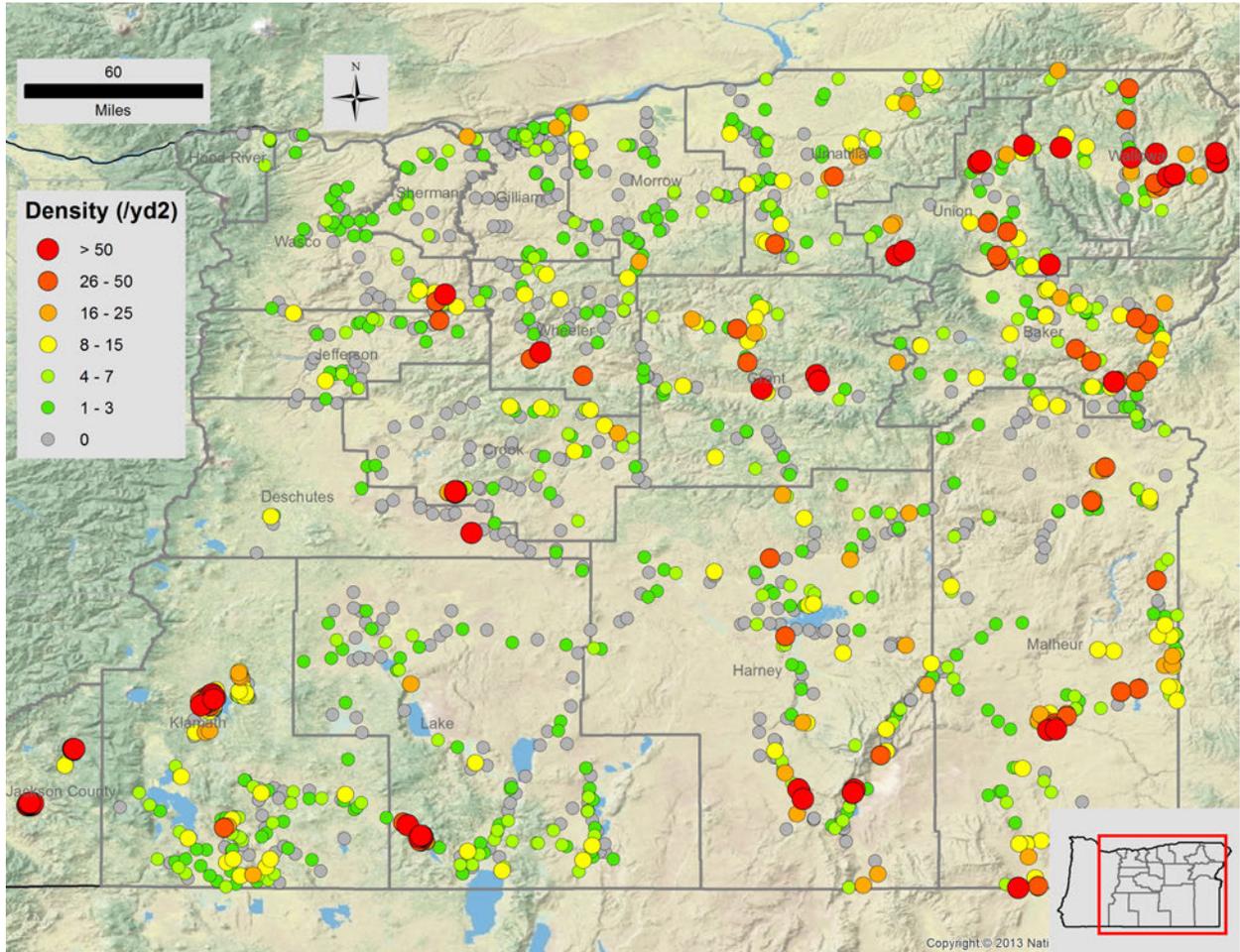


Fig. 5. All grasshopper densities (/yd<sup>2</sup>) from the Survey to date (1:2400k\*).

Table 2. Year-to-date number of grasshopper survey stops showing Density Category (/yd<sup>2</sup>) by Dominant Developmental Stage for the entire Season.

Density	Totals	Dominant Developmental Stage						
		Egg	1	2	3	4	5	Adult
0	600							
1 – 3	362	0	54	53	17	29	16	193
4 – 7	259	0	51	45	12	34	14	103
8 – 15	182	0	41	31	7	16	12	75
16 – 25	86	0	10	12	4	12	13	35
26 – 50	70	0	7	12	2	0	11	38
> 50	60	0	8	11	3	0	10	28
	1619	0	171	164	45	91	76	472
Percentages:		0	16.8	16.1	4.4	8.9	7.5	46.3

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

Table 3. Year-to-date number of grasshopper survey stops at the **Common Data Sites** showing Density Category (/yd<sup>2</sup>) by Dominant Developmental Stage for the entire Season. A total of 237 CDS locations are expected for Oregon.

Density	Totals	Dominant Developmental Stage						
		Egg	1	2	3	4	5	Adult
0	75							
1 – 3	66	0	1	0	0	2	0	63
4 – 7	43	0	0	0	0	1	2	40
8 – 15	25	0	0	0	0	1	1	23
16 – 25	13	0	0	0	0	0	0	13
26 – 50	8	0	0	0	0	0	0	8
> 50	7	0	0	0	0	0	0	7
	237	0	1	0	0	4	3	154
Percentages:		0	0.6	0	0	2.5	1.9	95.1

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**Grasshopper Developmental Degree Days Accumulated**

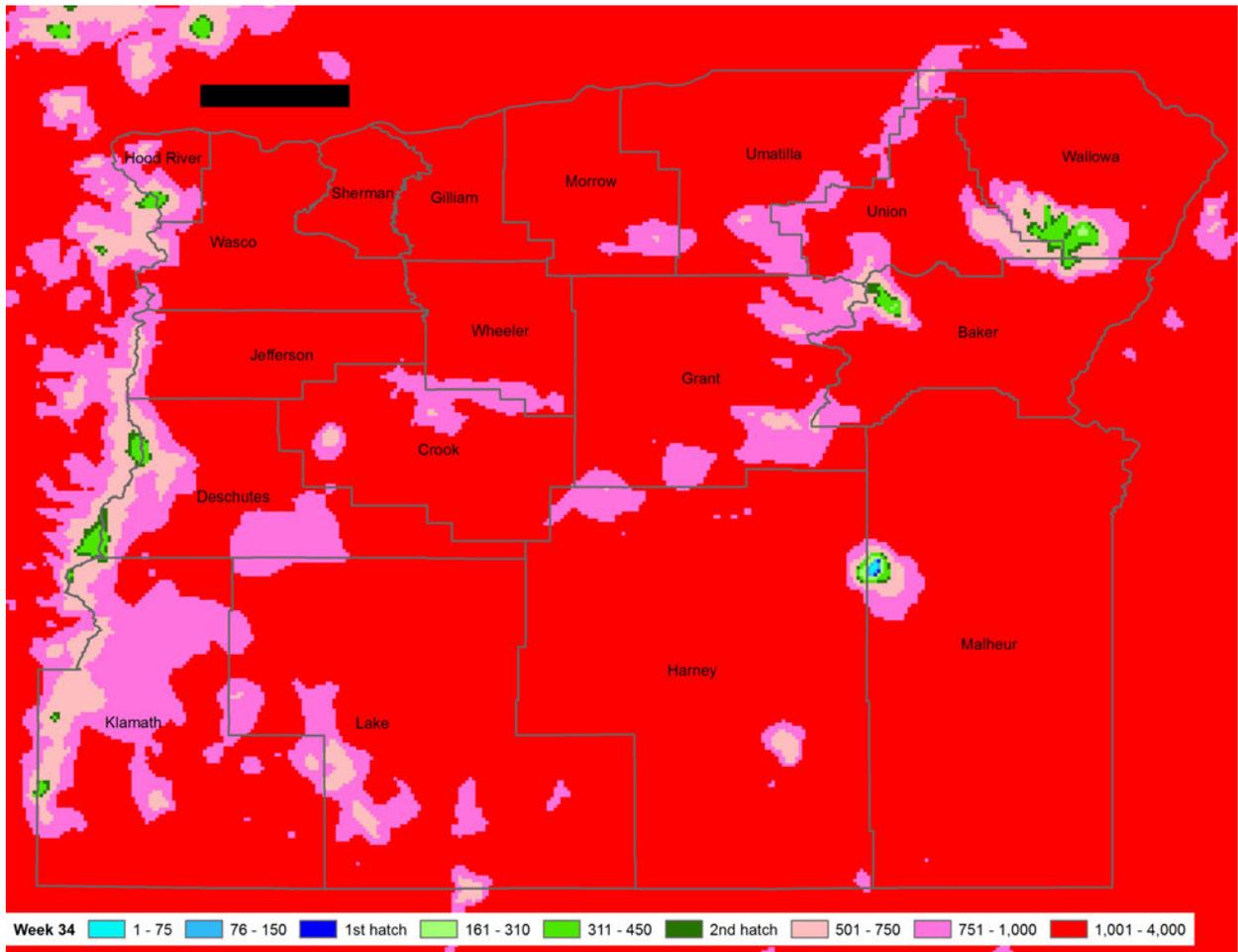


Fig. 6. The accumulation of thermal units up to 23 August 2019 is based on a 50 °F base threshold and is a generalized model for all species of grasshopper. Grasshopper Degree Day development has been generalized from the information provided in Pfadt's *Western Grasshoppers*, 3rd Ed. Degree-Day GIS data provided by Oregon State University Integrated Plant Protection Center <http://uspest.org/wea> using public weather data from Utah-Mesowest, <http://www.met.utah.edu/mesowest> and OSU PRISM Group <http://prism.oregonstate.edu>. (1:2400k\*)

**State: Oregon**  
**National Rangeland Grasshopper Mormon cricket Program Report**

**MORMON CRICKET**

There were no Mormon crickets encountered in this week's survey.

Table 4. This week's Mormon cricket survey showing the number of stops by Density Category (/yd<sup>2</sup>) and Dominant Instar.

Density	Totals	Dominant Developmental Stage								
		Egg	1	2	3	4	5	6	7	Adult
0	74									
1 – 2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4 – 6	0	0	0	0	0	0	0	0	0	0
7 – 10	0	0	0	0	0	0	0	0	0	0
11 – 25	0	0	0	0	0	0	0	0	0	0
> 25	0	0	0	0	0	0	0	0	0	0
	74	0	0	0	0	0	0	0	0	0
Percentages:		0	0	0	0	0	0	0	0	0

**Mormon Crickets Year-To-Date**

Table 5. Mormon cricket survey year-to-date showing the number of stops by Density Category (/yd<sup>2</sup>) and Dominant Instar.

Density	Totals	Dominant Developmental Stage								
		Egg	1	2	3	4	5	6	7	Adult
0	1584									
1 – 2	26	0	0	9	10	4	2	0	0	1
3	4	0	0	1	1	2	0	0	0	0
4 – 6	10	0	1	0	5	3	1	0	0	0
7 – 10	9	0	0	2	5	2	0	0	0	0
11 – 25	9	0	0	0	2	4	1	0	0	2
> 25	19	0	1	1	2	11	1	0	0	3
	1661	0	2	13	25	26	5	0	0	6
Percentages:		0	2.6	16.9	32.5	33.8	6.5	0	0	7.8

State: Oregon  
National Rangeland Grasshopper Mormon cricket Program Report

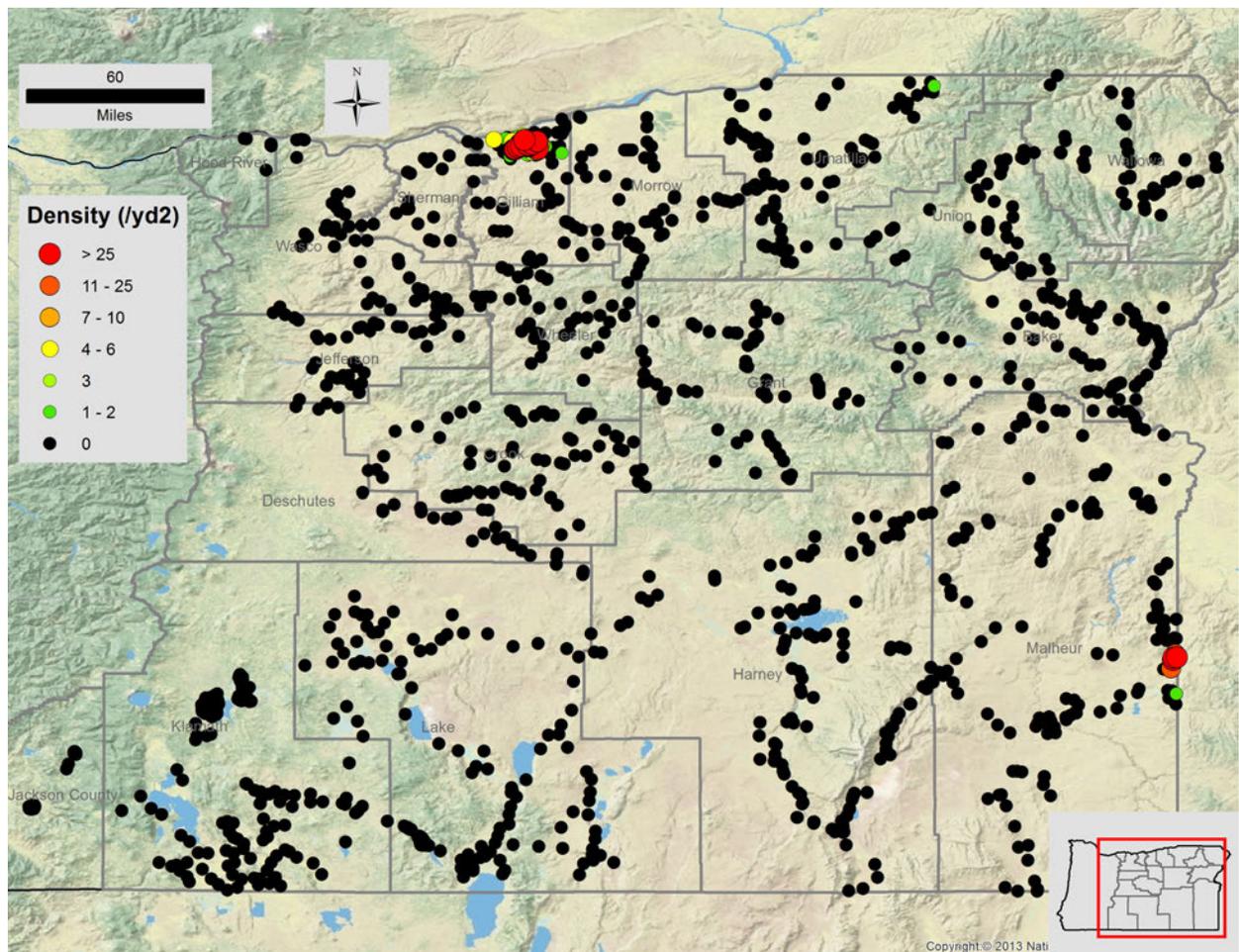


Fig. 7. Mormon cricket densities (/yd<sup>2</sup>) from all stops in this year's Survey (1:2400k\*).

### Suppression Activities

No Oregon APHIS / ODA suppression activities occurred this week.

\*Maps have been prepared by Paul Blom, Entomologist with the Oregon Department of Agriculture. Datum: WGS 1984. Projection: GCS WGS 1984. This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.